

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

BRIDGESTONE SPORTS CO., LTD.,)	
and BRIDGESTONE GOLF, INC.,)	
)	
Plaintiffs,)	C. A. No. 05-132 (JJF)
)	
v.)	
)	PUBLIC VERSION
ACUSHNET COMPANY,)	
)	
Defendant.)	

ACUSHNET COMPANY'S OPPOSITION TO BRIDGESTONE'S
MOTION FOR SUMMARY JUDGMENT OF NO
INVALIDITY OF U.S. PATENT NO. 6,679,791

OF COUNSEL:

Alan M. Grimaldi
Joseph P. Lavelle
Kenneth W. Donnelly
HOWREY LLP
1299 Pennsylvania Avenue, N.W.
Washington, DC 20004
Tel: (202) 783-0800

Richard L. Horwitz (#2246)
David E. Moore (#3983)
POTTER ANDERSON & CORROON LLP
Hercules Plaza, 6th Floor
1313 North Market Street
P. O. Box 951
Wilmington, DE 19899-0951
Tel: (302) 984-6000
rhorwitz@potteranderson.com
dmoore@potteranderson.com

*Attorneys for Defendant
Acushnet Company*

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Defendant Acushnet Company ("Acushnet") opposes Bridgestone's Motion for Summary Judgment of No Invalidity of U.S. Patent No. 6,679,791 ("the '791 patent") (D.I. 381, Ex. 1). Bridgestone's motion should be denied.

I. NATURE AND STAGE OF PROCEEDINGS

This patent infringement suit involves eleven patents and is scheduled for trial starting June 18, 2007. Seven of the patents-in-suit are asserted by Bridgestone. Bridgestone filed its Motion for Summary Judgment of No Invalidity of U.S. Patent No. 6,679,791 on April 13, 2007 ("Bridgestone's Motion") (D.I. 350). Simultaneously, Acushnet filed its Motion for Summary Judgment of Invalidity of U.S. Patent No. 6,679,791 ("Acushnet's Motion") (D.I. 381). Both parties have therefore filed summary judgment motions directed to the validity or invalidity of the '791 patent.

II. SUMMARY OF ARGUMENT

Bridgestone's motion for summary judgment that the '791 patent has not been proven invalid should be denied. Bridgestone has not established the absence of disputed facts material to its motion, and it certainly has not established its entitlement to judgment as a matter of law. Rather, the facts that are undisputed entitle Acushnet, not Bridgestone, to summary judgment on the '791 patent.

First, with regard to the issue of enablement under 35 USC § 112, Acushnet on April 13 moved for summary judgment that the '791 patent is invalid as not enabled because the patent does not teach one of ordinary skill in the art how to (a) manufacture a gradually increasing core gradient at any hardness greater than 22; (b) regularly or consistently manufacture a core with a hardness gradient of greater than 22; or (c) manufacture cores with any core gradients other than ones with the fairly narrow range of 23-24 shown in the sparse examples of the patent. Acushnet's memorandum, which is found at docket entry 381 and is summarized herein, relies on the patent in suit, the admissions of Bridgestone's experts and other relevant evidence demonstrating the

invalidity of the '791 patent. With this evidence, Acushnet meets its burden in opposing Bridgestone's present motion.

Bridgestone's moving brief does not address at all, much less rebut, the showing in Acushnet's motion for summary judgment. Instead, Bridgestone's brief consists of little more than an effort to dispute the conclusions of Acushnet's expert, Dr. Felker, which at best creates fact disputes material to Bridgestone's motion. Bridgestone does an admirable job of trying to demonstrate, for example, that fact disputes *do* exist as to the maximum hardness that can be achieved using the '791 patent's sparse teaching. Thus, Bridgestone has wholly failed to demonstrate the absence of disputes regarding the facts material to its motion, and therefore, its motion should be denied.

Second, with regard to the "written description" argument advanced by Bridgestone, compliance with this requirement is a question of fact. The testimony of Dr. Felker and the sparse disclosure of the '791 patent provide an ample factual basis for the finder of fact to conclude that the patentee did not comply with the written description requirement of 35 USC § 112. Bridgestone's simplistic argument that the patent is presumed to comply with the written description requirement is insufficient to carry its burden on summary judgment when actual evidence shows that the patentee did not comply with the written description requirement. Thus, Bridgestone's motion for summary judgment should be denied on this ground as well.

III. APPLICABLE LAW

A. Standards for Summary Judgment.

Rule 56 of the Federal Rules of Civil Procedure, Fed. R. Civ. P. 56(c), mandates that summary judgment shall be rendered if "there is no genuine issue as to any material fact and . . . the moving party is entitled to a judgment as a matter of law." *Anderson v. Liberty Lobby*, 477 U.S. 242, 248 (1986). Where, as here, the summary judgment movant does not have the burden of proof at trial, the movant for summary judgment

must show that the non-moving party has failed to produce evidence to establish the existence of an essential element of its case. *Alvord-Polk, Inc. v. Schumacher & Co.*, 37 F. 3d 996, 1000 (3d Cir. 1994); *A. Natterman & Cie GmbH v. Bayer Corp.*, 428 F. Supp. 2d 253 (E.D. Pa. 2006). If the movant makes this showing, the non-movant must show that it has adduced sufficient evidence for the court or jury to rule in its favor or that fact disputes exist that preclude entry of summary judgment. *See Witco Corp. v. Beekhuis*, 38 F.3d 682, 686 (3d Cir. 1994).

B. The Enablement Requirement of 35 U.S.C. §112, ¶1

The “enablement” requirement of 35 U.S.C. § 112, ¶1 requires that the patent must describe the manner and process of making and using the invention so as to enable a person of skill in the art to make and use the full scope of the invention without undue experimentation. *See Lizardtech, Inc. v. Earth Resource Mapping, Inc.*, 424 F.3d 1336, 1345 (Fed. Cir. 2005); *AK Steel Corp. v. Sollac and Ugine*, 344 F.3d 1234, 1244 (Fed. Cir. 2003).

This means that “there must be sufficient disclosure, either through illustrative examples or terminology, to teach those of ordinary skill how to make and how to use the invention as broadly as it is claimed.” *In re Vaeck*, 947 F.2d 488, 496 (Fed. Cir. 1991); *see also Plant Genetic Sys., N.V. v. DeKalb Genetics Corp.*, 315 F.3d 1335 (Fed. Cir. 2003) (“the scope of the claims must bear a reasonable correlation to the scope of enablement provided by the specification to persons of ordinary skill in the art.”) (citations omitted); *National. Recovery Techs., Inc. v. Magnetic Separation Sys., Inc.*, 166 F.3d 1190, 1195-1196 (Fed. Cir. 1999) (“The enablement requirement ensures that the public knowledge is enriched by the patent specification to a degree at least commensurate with the scope of the claims.”) (citations omitted).

If the specification fails to enable the full scope of what is claimed, then the patent is invalid. *See, e.g., D.I. 381, Ex. 11 - Liebel-Flarsheim Co. v. Medrad.*, No. 06-1156

2007 U.S. App. LEXIS 6607 at *19 (Fed. Cir. March 22, 2007); *Lizardtech*, 424 F.3d at 1346 (merely describing one embodiment does not always enable the patent). Whether an invention is enabled under 35 U.S.C. § 112 is a question of law. *Amgen, Inc. v. Chugai Pharm. Co.*, 927 F.2d 1200, 1212 (Fed. Cir. 1991).

The Federal Circuit has stated that “[p]atent protection is granted in return for an enabling disclosure of an invention, not for vague intimations of general ideas that may or may not be workable.” *Genentech, Inc. v. Novo Nordisk A/S*, 108 F.3d 1361, 1365-66 (Fed. Cir. 1997). Thus, for example, where the claimed invention is the application of an unpredictable technology, an enabling description in the specification must provide those skilled in the art with a specific and useful teaching in return for the patent. *Id.* at 1367-68; *see also In re Fisher*, 427 F.2d 833, 839 (C.C.P.A. 1970) (in cases involving unpredictable factors, such as most chemical reactions and physiological activity, “the scope of the enablement obviously varies inversely with the degree of unpredictability of the factors involved”). The claims of a patent are not enabled if an undue amount of experimentation is needed to develop the concepts alluded to in the patent. *Vaeck*, 947 F.2d at 495-96; *see also National Recovery*, 166 F.3d at 1197.

Where the specification teaches away from using the invention in a particular way, this teaching away “is itself evidence that at least a significant amount of experimentation would have been necessary to practice the claimed invention.” D.I. 381, Ex. 11 - *Liebel-Flarsheim*, 2007 U.S. Dist. 6607 at *19 (quoting *AK Steel*, 344 F.3d at 1244).

Applying these standards, and of particular relevance to the present Bridgestone and Acushnet motions, a line of Federal Circuit cases has found that a patent is clearly not enabled nor adequately described where it does not disclose in its specification embodiments of the invention covering points throughout the broad range claimed by the applicants. *See AK Steel*, 344 F.3d at 1244 (“When a range is claimed, there must be a reasonable enablement of the scope of the range.”); *see also, e.g., In re Cook*, 439 F.2d

730, 735-36 (C.C.P.A. 1971) (claims properly rejected when applicants failed to establish support for range limitations in claims; although applicants disclosed six examples, they failed to disclose embodiments at “various points throughout the broader claimed range.”); *In re Fisher*, 427 F.2d at 839 (claims properly rejected where claim required potency of “at least 1” but specification disclosed products having potencies from only 1.11 to 2.30); *Syngenta Seeds, Inc. v. Monsanto Co.*, 404 F. Supp. 2d 594, 603-04 (D. Del. 2005) (affirming verdict that claims having “at least about 60%” limitation were invalid where the specification disclosed only one working gene in the claimed range).

C. The Written Description Requirement.

To be valid under 35 U.S.C. § 112 a patent also must describe the invention sufficiently to convey to a person of skill in the art that the patentee had possession of the claimed invention at the time of the application, i.e., that the patentee invented what is claimed. *Lizardtech*, 424 F.3d at 1345. Here the court must decide whether the invention that the applicants seek to protect by their claims is part of the invention that is described in the specification. *In re Wertheim*, 541 F.2d 257, 263 (C.C.P.A. 1976).

Where the claims of the patent are broader than that which the applicants described in the patent specification, the patent does not satisfy the written description requirement found in 35 U.S.C. § 112 any more than it would satisfy the enablement requirement. *Id.* at 263 (claim properly rejected where it recites a solids content range of “at least 35%,” which is broader than the 25-65% range described in the patent); *see also In re Cook*, 439 F.2d 730, 735-36 (C.C.P.A. 1971) (claims properly rejected when applicants failed to establish support for range limitations in claims; although applicants disclosed six examples, they failed to disclose embodiments at “various points throughout the broader claimed range.”); *In re Fisher*, 427 F.2d at 839 (claims properly rejected where claim required potency of “at least 1” but specification disclosed products having potencies from only 1.11 to 2.30); *Syngenta Seeds, Inc. v. Monsanto Co.*, 404 F.Supp.2d

594, 603-04 (D. Del. 2005) (affirming verdict that claims having “at least about 60%” limitation were invalid for lack of written description where specification disclosed only one working gene in the claimed range).

The two requirements of 35 U.S.C. §112, ¶1 often rise and fall together. “A recitation of how to make and use the invention across the full breadth of the claim is ordinarily sufficient to demonstrate that the inventor possesses the full scope of the invention, and vice versa.” *Lizardtech*, 424 F.3d at 1345. Moreover, although a patent is presumed valid, that presumption is in no way dispositive. Instead, “[t]he courts are the final arbiter of patent validity and, although courts may take cognizance of, and benefit from, the proceedings before the patent examiner, the question is ultimately for the courts to decide, without deference to the rulings of the patent examiner.” *Quad Envtl. Techs. Corp. v. Union Sanitary Dist.*, 496 F.2d 870, 876 (Fed. Cir. 1991); *see also AK Steel*, 344 F.3d at 1245 (the failure of the PTO to issue an enablement rejection does not automatically create “an especially weighty presumption” of compliance with § 112).

IV. ARGUMENT

A. **Bridgestone’s Summary Judgment Motion Should Be Denied As It Relates To Enablement.**

Bridgestone’s motion for summary judgment on the enablement issue should be denied. Acushnet has itself moved for summary judgment on the ground that the ‘791 patent is invalid for lack of enablement, and the Court may decide this question based on the material evidence presented in Acushnet’s memorandum in support of its motion. That evidence, summarized below, demonstrates that Acushnet has adduced substantial evidence, from the patent itself, the admissions of Bridgestone’s inventors and experts, and other admissible sources, for the Court to find as a matter of law that the ‘791 patent is invalid.

Bridgestone's motion does not address or question any of this evidence. Instead, Bridgestone devotes its brief in large part to quibbling with contentions of Acushnet's expert, Dr. Felker. At most, Bridgestone shows that there may be fact disputes regarding issues described by Dr. Felker that would warrant denial of Bridgestone's motion. In this opposition, Acushnet first summarizes the evidence it has adduced that the '791 patent is invalid. Acushnet then shows that Bridgestone's evidence has failed to rebut or challenge any of this in a material way. Thus, as ample evidence exists for the Court to find the '791 patent invalid, Bridgestone's motion should be denied.

1. The '791 Patent Is Invalid As Not Enabled.

Docket Item 381 is Acushnet's motion for summary judgment that the '791 patent is invalid. The following is the evidence that supports Acushnet's position.

Bridgestone's experts concede that the art to which the '791 patent pertains is unpredictable in that the properties of cores, and particularly the hardness gradient of the cores, cannot be ascertained simply by identifying the rubber material used in the core and the time and temperature at which the cores were made.

Bridgestone's expert, Mr. Calabria, states:

[S]ome cores will have a uniform cure from center to surface, a hardness profile which peaks or dips along radial directions of the core, some will exhibit a higher cure in the center than the surface, others will show an increased gradient from center to surface, or other combinations. *This will be dependent on the chemistry employed in preparing the rubber, the time and temperature parameters during molding, as well as the size of the cavities and pressure used to form the cores.*

(D.I., Ex. 7- 2/20/07 Calabria Report at 12 (emphasis added); *see also id.*, App C., ¶19 ("just by making minor variations in the level of the generically indicated [chemical]" will have a large effect on gradient; "[c]hanges in name brands of materials can also have

such a significant difference;” “even different lots of the same name brand of material can have significant lot-to-lot variability resulting variation of the core properties.”)¹

In his deposition, Mr. Calabria further explained the specificity required to be able to predict or understand the properties of a golf ball core. He explained that other factors relevant to the formation of a core gradient include the core size, how the materials are mixed before molding, including sequencing of materials and time parameters and temperature profiles, and information regarding the ball core press, including the geometry of the press mold, and the number, shape, and layout of mold cavities. (See D.I. 381, Ex. 7- 2/20/2007 Calabria Report at App. C, ¶¶ 24-27; D.I. 381, Ex. 9 - 3/15/07 Calabria Tr. at 69:4 - 69:9; 71:12 - 73:7; 96:1- 101:24; 264:2 - 271:6).

Mr. Cadorniga again concurs that without a detailed understanding of a particular core’s manufacturing process, one cannot assume what the hardness is at an internal point of that core relative to its surface without testing that particular point. (See D.I. 381, Ex. 10 - 3/12/07 Cadorniga Tr. 235:3-235:6).

Where the claimed invention is the application of an unpredictable technology, an enabling description in the specification must provide those skilled in the art with a specific and useful teaching. See *Genentech*, 108 F.3d at 1367-68; see also *In re Fisher*, 427 F.2d 833, 839 (C.C.P.A. 1970). Here, it is very clear that the ‘791 patent’s disclosure does not enable the manufacture of a gradually increasing core gradient at any hardness greater than 22; does not enable all cores with a core gradient of greater than 22; and does not teach one of skill in the art to make cores with any core gradients other than the fairly narrow range of 23-24 shown in the sparse examples disclosed in the specification.

Among other things, there is no basic teaching in the patent to explain to one skilled in the art how to form a core gradient, how to insure that the surface hardness is

¹ Bridgestone’s infringement expert, Larry Cadorniga, agrees with Mr. Calabria. (See D.I. 381, Ex. 8- 2/20/07 Cadorniga Report at ¶166 (golf balls cured with peroxide can be harder at the center than the outside of the core)).

higher than the center, or how to insure that the core gradient is greater than 22 degrees. It seems apparent that Bridgestone did not possess at the time of the filing (or at least did not disclose it) a broad general understanding of the phenomenon of core gradients. Nor did they disclose the kind of detailed understanding or teaching to allow one to make golf balls with a broad range of core gradients in this highly unpredictable art.

Significantly, the specification of the '791 patent states that a gradually increasing hardness profile is "critical" for the invention. (D.I. 381, Ex. 1 at Col. 3, lines 26-30). Yet there is not a word, anywhere in the patent, as to how to form a core with a "gradually increasing" hardness profile. The patent fails to teach this "critical" step in the carrying out of the invention. As the performance of this step is neither routine nor predictable, this failing alone is adequate to invalidate the patent. *See* D.I. 381, Ex. 11 - *Liebel-Flarsheim*, at *19, 20; *Lizardtech*, 424 F.3d at 1346-47; *Tronzo v. Biomet, Inc.*, 156 F.3d 1154, 1159 (Fed. Cir. 1998).

Rather, instead of teaching one of ordinary skill in the art how to make the invention, the detailed description of the invention describes the process for making cores only in the broadest, most general terms; generalities that its own experts concede are inadequate to disclose how to make the invention. The '791 patent states that the core is made from 1,4 polybutadiene (or other rubbers) mixed with carboxylic acids and peroxides. (D.I. 381, Ex. 1 at Col. 2, lines 27-32). However, it does not describe the brand, lot or grade of the rubber or any details of the core mixing process, all of which plaintiffs' experts concede are critical and necessary to determine the core gradient. (D.I. 381, Ex. 9 - 3/15/07 Calabria Tr. at 69:4 - 69:9; 71:12 - 73:7; 264:2 - 271:6).

The detailed description of the specification states that any number of peroxides can be used as the catalyst. (D.I. 381, Ex. 1 at Col. 2, lines 42-49). However, the detailed description does not state what brands or grades work and do not work, or specify how much to use to generate a particular core gradient, except to say that one should use between 0.1 and 5 parts by weight, preferably 2 parts by weight, of the

peroxide. Once again, this is little more than an invitation to experiment, not an enablement of a specific invention relating to core gradients. *Genentech, Inc. v. Novo Nordisk A/S*, 108 F.3d at 1365-66 (vague intimations of general ideas that may or may not be workable are insufficient).

Similar shortcomings can be found in the listing of other ingredients in the core (See, e.g., D.I. 381, Ex. 1 at Col. 2, lines 50-67). With respect to molding times and temperatures, the “detailed” description of the invention says the mold temperature can be between 150 and 190 degrees and the mold time can be between 12 and 20 minutes. (*Id.* at Col. 2, lines 1-15). These are very broad, general ranges that would be typical of many prior art balls. (See e.g., D.I. 381, Ex. 13 - U.S. Patent No. 5,782,707, Col. 4, line 13 (160 degrees for 20 minutes); D.I. 381, Ex. 14 - U.S. Patent No. 5,743,817, Col. 4, line 5 (130 to 170 degrees); and D.I. 381, Ex. 15 - U.S. Patent No. 5,553,852, Col. 4, lines 23-24 (155 degrees for 15 minutes)).

Further still, the ‘791 patent contains no disclosure whatsoever of many parameters that Bridgestone’s experts admit are needed to determine the properties of the core gradient. For example, the ‘791 patent does not disclose the mold size, mold geometry, mold pressure, heat application technique, or mixing parameters. Bridgestone’s experts admit that one skilled in the art needs to know all of these parameters to determine the core gradient. (D.I. 381, Ex. 9 - 3/15/07 Calabria Tr. at 96-100). Mr. Calabria admitted that it was just as important to know these parameters in assessing the patents in suit as it was in evaluating the prior art. (D.I. 381, Ex. 9 - 3/15/07 Calabria Tr. at 101-04).

It is beyond dispute that critical parameters needed to predict the hardness profile of the ‘791 patent are not disclosed in that patent. Thus, the patent is invalid. See D.I. 381, Ex. 11 - *Liebel-Flarsheim*, at *19, 20; *Tronzo*, 156 F.3d at 1159.

While the patent does contain a few “examples” of cores made under the ‘791 patent, the examples do more to obscure than to enable the core gradient issue. First of

all, the examples state that they were made “[t]o ascertain the flight characteristics and feel of golf balls,” not to explicate the mechanisms of core gradient formation and control. (D.I. 381, Ex. 1 at Col. 5, lines 52-53).

The patent contains three example of the invention (Examples 1-3) all of which have a hardness gradient of 23 or 24 degrees. (D.I., Ex. 1 at Col 7, Table 3). The patent does not state whether these examples have a “gradually increasing” hardness profile, and no example of the invention exists that discloses or teaches this supposedly “critical” feature of the invention. Moreover, while the art is not predictable according to Bridgestone’s own experts, there is nothing in the patent that explains how to make core gradients at any gradient other than 23-24. The patent examples plainly do not support the entire range of an “at least 22” hardness gradient as claimed by Bridgestone. Bridgestone’s expert opines, for example, that “at least 22” covers balls having an alleged average gradient of 31.9, with one such “infringing” ball having a gradient of 35.6. (Ex. A - Cadorniga Infringement Report, at G-18 to G-20, Table G-5; Ex. B - Raw P2X Data (Pro V1x-332).)

Nor do the examples disclose any of the above molding parameters that the experts admit are critical to the invention. The examples only disclose the time and temperature of the molding. (D.I. 381, Ex. 1 at Col. 3, lines 10-15). However, these parameters alone are not sufficient to determine the hardness profile, as plaintiff admits. (See D.I. 381, Ex. 9 - 3/15/07 Calabria Tr. at 91-92).

The patent nowhere explains how or why these examples work, or why other examples fail. It does not teach what factors are important in deriving the core gradient, or provide any information or direction to allow one skilled in the art to create core gradients other than in the specific examples of the ‘791 patent. In particular, the ‘791 patent does not anywhere explain why Examples 1-3 have the requisite core gradient while comparative examples 1-2, which differ only slightly in the ingredients used (D.I. 381, Ex. 1 at Col. 6, Table 3), have a “flat” or too small hardness profile.

Far from enabling the full scope of the claims, the examples show only that the inventors made a few specific examples with the requisite gradient, and are trying to improperly extrapolate from these few examples to sweep in coverage over a broad class of golf balls they did not invent, including almost any multi-layer golf ball with a hardness gradient greater than 22. In doing so, applicants violate Section 112 of the patent. See D.I. 381, Ex. 11 - *Liebel-Flarsheim*, at *23; *AK Steel*, 344 F.3d at 1244, and other exemplary cases cited *supra* at 8-9.

This evidence shows that the 791 patent is invalid. Bridgestone's current motion does not challenge any of it.

2. Bridgestone's Arguments Are Not Substantial or Persuasive.

Bridgestone's current motion does not challenge any of the above evidence. Instead, Bridgestone does little more than quibble with certain aspects of Dr. Felker's expert report, often misconstruing what it says to further its meager argument. We show here that Bridgestone does not provide any basis on which to grant its motion.

a. The upper limit of "at least 22" is irrelevant.

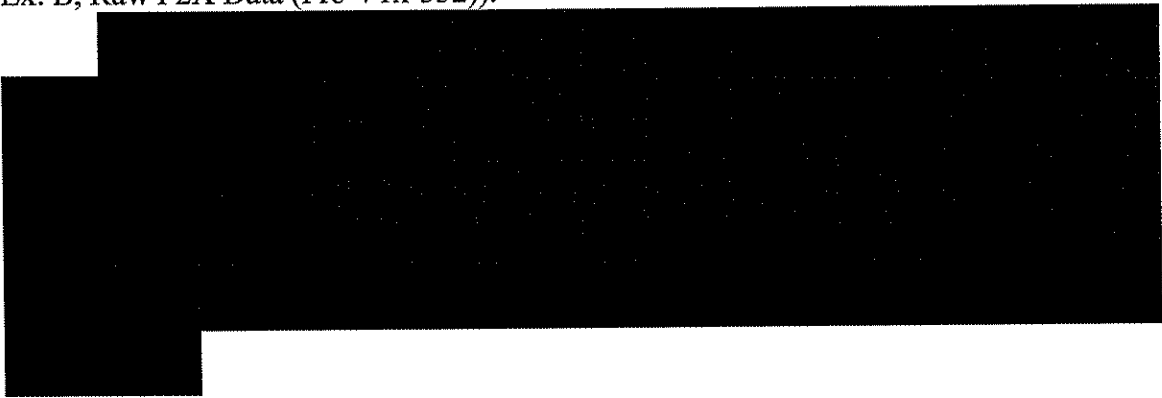
Bridgestone first argues that Dr. Felker failed to consider what the term "at least 22" would mean to one of ordinary skill in the art and engaged in a "theoretical analysis" of what that claim limitation must cover. (Bridgestone's Motion at 7-9). Bridgestone argues that in so doing, Acushnet failed to ascertain the scope of what the '791 patent covers and hence cannot say that it is invalid.

The claim language in question is open-ended and claims a hardness difference of "at least 22" between the core center and core surface. With such an open-ended claim, the claim must enable the entire range from 22 to the limit that one skilled in the art would understand to be the practical upper limit. See *Scripps Clinic & Res. Found. v. Genentech, Inc.*, 927 F.2d 1565, 1572 (Fed. Cir. 1991) (Open-ended claims "may be

supported if there is an inherent, albeit not precisely known, upper limit and the specification enables one of skill in the art to approach that limit.”) Here, the exact upper limit of the claim range may be debatable.

The patent discloses that hardness gradients greater than 30 were disfavored by the inventors. (D.I. 381, Ex. 1 at col. 3, lines 43-45 (“It is recommended that the upper limit in the hardness difference be at most 30 ...”); *see also id.* at col. 3, lines 51-57 (explaining reasons).) Dependent claims 4 and 15 likewise claim a hardness gradient of 22-30; hence, the patentee envisioned a gradient of at least 22-30 points on the JIS-C. Further, since under the doctrine of claim differentiation dependent claims are presumed to be of narrower scope than the independent claims from which they depend, the inventors intended “at least 22” to encompass cores with gradients over 30. *See AK Steel*, 344 F.3d at 1242.

Moreover, the upper range of “at least 22” is even higher than this, says Bridgestone’s expert. In his infringement report, Mr. Cadorniga opines that balls with an alleged average gradient of 31.9, with one such ball of a gradient of 35.6, infringes the “at least 22” limitation. (Ex. A, Cadorniga Infringement Report, at G-18 to G-20, Table G-5; Ex. B, Raw P2X Data (Pro V1x-332)).



The dispute regarding the upper end of the range, however, is not material here and need not be resolved to determine that the patent is invalid. The patent contains no teaching of any core gradient other than 23 or 24. It does not teach one how to make cores with “gradually increasing” hardness profiles (irrespective of the range of

gradients), and it does not provide enough detail to allow one skilled in the art to regularly make cores with hardness profiles greater than 22. Aside from the two examples (hardness profiles of 23 and 24), it provides no guidance at all as how to practice the invention, and it lacks disclosure of many requirements that its own experts admit are needed to practice the patent. (See D.I. 381, Ex. 7- 2/20/2007 Calabria Report at App. C, ¶¶ 24-27; D.I. 381, Ex. 9 - 3/15/07 Calabria Tr. at 69:4 - 69:9; 71:12 - 73:7; 96:1- 101:24; 264:2 - 271:6). Thus, whether the theoretical upper limit of hardness gradients for single (or even dual) cores that could be made is 30, 40, 50 or something else even higher, is largely immaterial. The '791 patent does not teach how to make cores with gradients of 30, 40, 50 or anything higher. It does not teach enough even for the experts to agree how to apply it at higher gradients, as the briefing here shows. Nor does it teach anything about making cores of any range that would have "gradually increasing" hardness profiles. The patent is invalid, and the dispute over the upper range is not material to the outcome.²

b. The patent is limited to a single core.

Bridgestone next argues that the '791 patent is not limited to single core technology, but in fact discloses dual core balls, pointing to a part of the specification that says the invention relates to balls with three layers. Bridgestone's Motion at 9. While it is hard to see how this argument helps Bridgestone, for the patent fails to enable any dual core (let alone one that is "gradually increasing" or in the range of "at least 22"), reading the patent demonstrates that Bridgestone is plainly wrong about what the patent teaches.

² Notably, Bridgestone purports to quibble with Dr. Felker's analysis of "at least 22" but never once offers its view of the upper limit of this open-ended claim, nor does Mr. Cadorniga, Bridgestone's expert, in his rebuttal report. As a matter of claim construction, the Court may of course decide the meaning of "at least 22" as a matter of law.

The '791 patent is replete with evidence that it is limited to a single core. (*See* Ex. D, Felker 2/20/07 Report at 118-121). As shown in Figure 1 of the patent, for example, the claimed ball is comprised of "*a* rubbery elastic core." The detailed description of the invention referring to Figure 1 states that the ball is composed of "at least three layers," "which include *a* rubbery elastic core 1, *a* cover 2 that is generally made of a resin material that has a plurality of dimples D on the surface thereof, and *one or more* intermediate layer 3 between the core and the cover 2, all situated in a concentric fashion." (D.I. 381, Ex. 1 at col. 1, line 64 - col. 2, line 4). One of ordinary skill in the art would understand from this specification that Bridgestone intended to only claim a single core. The specification consistently refers to "*a* single rubbery elastic core." (*See, e.g.*, D.I. 381, Ex. 1 at Abstract; Col. 1, lines 36-37; Col. 1, line 67; *see also* Ex. D, Felker 2/20/07 Report at 119).

On the other hand, when referring to the intermediate layer, Bridgestone clearly intended to claim a multi-piece ball with one or more intermediate layers. (*See e.g.*, D.I. 381, Ex. 1, Abstract; Col 1, lines 39-41; Col. 2, lines 2-3; Col. 4, lines 66-67. ("*at least one intermediate* layer situated between the core and cover")). If Bridgestone intended to claim more than one core, it would have used the same explicit phrase "at least one" to describe the number of cores as it did to describe the number of intermediate layers contained in the claimed ball. In addition, the patent specifically claims "at least one intermediate layer."

In the specification, the patent specifically describes embodiments of balls having two or more intermediate layers and teaches how to adjust properties and measurements in such circumstances: "...it is advisable to set the overall thickness of the intermediate layers within the above range;" (D.I. 381, Ex.1 at Col. 4, lines 62-65; Col. 4, lines 66-67; Col 5, lines 1-3; Col 3, lines 17-19). The '791 patent neither claims dual cores, discloses embodiments of balls with two cores, nor provides the properties or measurement parameters of two cores. Therefore, the '791 patent simply covers a single core golf ball.

c. The patent teaches away from gradients greater than 30.

Finally, Bridgestone argues that the '791 patent does not "teach away" from cores with gradients over 30. Bridgestone contends that the patent merely "recommends" using gradients of 30 or less, but does not suggest that using a greater differential will have an adverse effect on ball performance. Bridgestone's arguments are again contradicted by the face of the patent.

The '791 patent recommends that "the upper limit in the hardness difference be *at most 30*."³ (D.I. 381, Ex 1 at Col. 3, lines 43-45; *see also* Ex. E, Felker 1/16/07 Report at 74.) Moreover, the specification states that a failure to obtain the optimized hardness in the core affects the "feel" of the ball and "fail[s] to achieve the desired rebound energy." (D.I. 381, Ex. 1 at Col. 3, lines 51-57). The specification further teaches that where the core has "a hardness gradually increasing radially outward" and an "optimized difference in hardness," an objective of the invention – improving the distance a golf ball will travel – is achieved. (*See* D.I. 381, Ex. 1 at Col. 4, lines 1-8). There can be no serious question that the patent teaches one of ordinary skill in the art that he/she should not make a hardness gradient greater than 30.

It has been held that where a patentee specifically discourages the use of some embodiments of the invention, that such embodiments are not enabled. *See AK Steel*, 344 F.3d at 1244. In *AK Steel*, the Federal Circuit affirmed the grant of summary judgment of non-enablement where the patent's specification taught away from using aluminum with

³ Bridgestone contends that Dr. Felker's statement is contradictory because he states that "the '791 patent teaches a method for creating core gradients of '40 or 50.'" (Bridgestone's Motion at 10). Bridgestone flatly mischaracterizes Dr. Felker's statement. Dr. Felker states: "The '791 is not enabled. It only teaches one how to use a single core technology. That [single core] technology cannot create cores with gradients much over 40." (Ex. E, Felker 1/16/07 Report at 73). Felker never opines that a core gradient of 40 is what the patent actually teaches. [REDACTED]

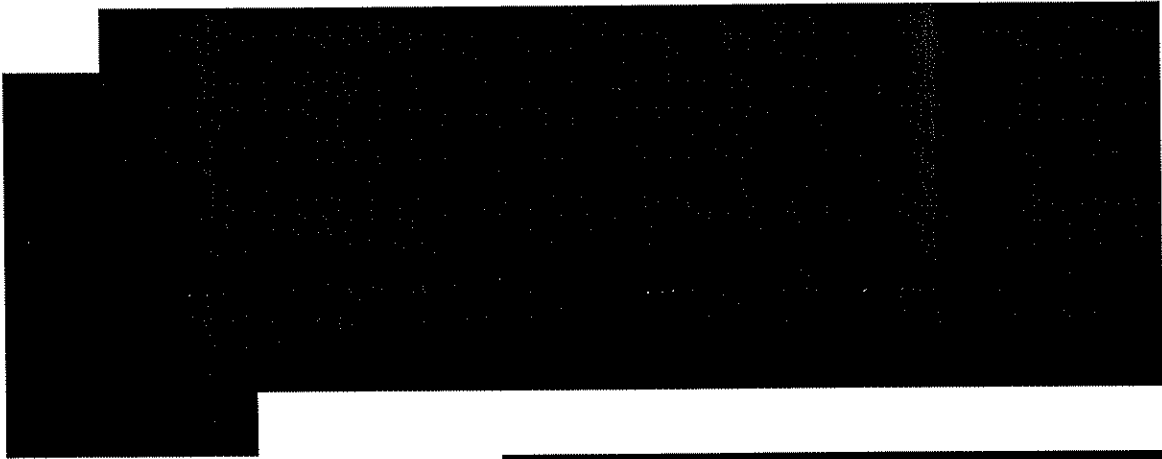
more than 0.5% silicon. *Id.* The court stated that “[s]uch a statement discourages experimentation with coatings having more than 0.5% silicon, undue or otherwise. It tells the public that higher amounts of silicon will not work. Nothing further need be said about the matter.” *Id.* Hence, any claim that claims a gradient of greater than 30 (all the independent claims) is invalid for this additional reason.

Bridgestone has not presented any arguments that support its motion. On the other hand, Acushnet has adduced evidence that the ‘791 patent is invalid as not enabled; thus, Bridgestone’s motion should be denied.

B. Bridgestone’s Motion on the Written Description Issue Should be Denied.

Bridgestone summarily argues that Acushnet cannot prove a violation of the written description requirement for the same reasons that it cannot prove a violation of the enablement requirement. (Bridgestone’s Motion at 11-12). Bridgestone also relies heavily on the presumption of the ‘791 patent’s validity.

Compliance with the written description requirement is a question of fact. *In re Wertheim*, 541 F.2d at 262. Here, Dr. Felker opines that the ‘791 specification is not enabled or adequately supported by the written description because Bridgestone did not invent or enable any technology that yields a golf ball core with a hardness gradient that encompasses the full scope of the claimed range of “at least 22.” (See Ex. E, Felker 1/16/07 Report at 71). Dr. Felker then opines that the specification does not have a written description that shows that “Bridgestone actually possessed any technology which could create cores with a gradient significantly over 22.” (Ex. E, Felker 1/16/07 Report at 73). The specification does not give any examples of gradients over 25 and states the hardness difference is at “most 30,” but “most preferably 25 units or less.” (D.I. 381, Ex. 1 at Col. 3, lines 43-45). Moreover, Dr. Felker opines that nothing in the specification indicates that Bridgestone was able to produce cores with a gradient over 40, the limit in single layer cores. (Ex. E, Felker 1/16/07 Report at 74)



Dr. Felker's expert testimony, [REDACTED] would support a verdict that the '791 patent was invalid for failure to comply with the written description requirement. As noted above, the limited, cursory disclosure of the '791 patent renders it invalid as not enabled as a matter of law. Regardless, the same evidence supports Dr. Felker's conclusion that the patent lacks an adequate written description. See *Lizardtech*, 424 F.3d at 1345 (noting that enablement and written description often rise and fall together).

Bridgestone cannot simply rely on the presumption of validity to save its patent; the ultimate conclusion is for the courts to decide, without deference to the rulings of the patent examiner. See *Quad Envtl. Techs. Corp. v. Union Sanitary Dist.*, 496 F.2d 870, 876 (Fed. Cir. 1991); see also *AK Steel*, 344 F.3d at 1245 (the failure of the PTO to issue and enablement rejection does not automatically create "an especially weighty presumption" of compliance with 35 U.S.C. § 112).

V. CONCLUSION

For all of the foregoing reasons, Acushnet requests that Bridgestone's motion for summary judgment that the '791 patent is not invalid be denied and judgment of invalidity be granted.

POTTER ANDERSON & CORROON LLP

OF COUNSEL:

Alan Grimaldi
Kenneth Donnelly
Joseph P. Lavelle
HOWREY LLP
1299 Pennsylvania Ave., N.W.
Washington, DC 20004
Tel: (202) 783-0800

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By: /s/ David E. Moore
Richard L. Horwitz (#2246)
David E. Moore (#3983)
Hercules Plaza, 6th Floor
1313 N. Market Street
P.O. Box 951
Wilmington, DE 19899-0951
Tel: (302) 984-6000
rhorwitz@potteranderson.com
dmoore@potteranderson.com

*Attorneys For Defendant
Acushnet Company*

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

CERTIFICATE OF SERVICE

I, David E. Moore, hereby certify that on May 7, 2007, the attached document was hand delivered to the following persons and was electronically filed with the Clerk of the Court using CM/ECF which will send notification to the registered attorney(s) of record that the document has been filed and is available for viewing and downloading:

Jack B. Blumenfeld
Maryellen Noreika
Leslie A. Polizoti
Morris, Nichols, Arsht & Tunnell
1201 N. Market Street
Wilmington, DE 19801

I hereby certify that on May 7, 2007, I have Electronically Mailed the documents to the following:

Robert M. Masters
Paul, Hastings, Janofsky & Walker LLP
875 15th Street, N.W.
Washington, D.C. 20005
RobMasters@paulhastings.com

/s/ David E. Moore
Richard L. Horwitz
David E. Moore
Potter Anderson & Corroon LLP
Hercules Plaza – Sixth Floor
1313 North Market Street
P.O. Box 951
Wilmington, DE 19899-0951
(302) 984-6000
rhorwitz@potteranderson.com
dmoore@potteranderson.com